



DEPARTMENT OF THE NAVY
NAVAL AIR SYSTEMS COMMAND
NAVAL AIR SYSTEMS COMMAND HEADQUARTERS
WASHINGTON, DC 20361-0001

IN REPLY REFER TO
NAVAIRINST 13100.5B
AIR-51121
26 Feb 88

NAVAIR INSTRUCTION 13100.5B

From: Commander, Naval Air Systems Command
To: Deputy Commander, NAVAIR Acquisition Executive and Deputy
Commander for Operations, Assistant Commanders,
Comptroller, Command Special Assistants, Program Directors,
Designated Program Managers, Program Coordinators,
Directorate Directors, Office and Division Directors

Subj: ADMINISTRATION OF MILITARY SPECIFICATION MIL-D-8708,
DEMONSTRATION REQUIREMENTS FOR AIRPLANES AND MIL-D-23222,
DEMONSTRATION REQUIREMENTS FOR HELICOPTERS

Ref: (a) Military Specification Mil-D-8708 Demonstration
Requirements for Airplanes
(b) Military Specification Mil-D-23222 Demonstration
Requirements for Helicopters

1. Purpose. To set forth the policy and responsibilities for
administering the provisions of the subject specifications.

2. Cancellation. This instruction supersedes NAVAIR Instruction
13100.5A of 1 November 1974. Since this is a major revision,
changes are not indicated.

3. Definitions

a. Demonstration Addendum is the Naval Air Systems Command
(NAVAIR) prepared contract document that implements the
provisions of the subject specifications. It defines specific
demonstration requirements for a particular model aircraft.
Proper reference to the addendum in the aircraft contract is the
method by which Naval Air Systems Command Headquarters
(NAVAIRHQ) requires the contractor to demonstrate aircraft
compliance with applicable specifications.

b. Delivery Schedule is a schedule in the aircraft contract,
normally titled "Deliveries," which lists the dates by which the
contractor shall deliver agreed upon quantities of aircraft to
the cognizant contracting plant representative office for
acceptance.

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4. Policy. It is the policy of the Commander, Naval Air Systems Command to require aircraft contractors to establish by demonstration with contractor flight crews that the aircraft can be safely operated by Navy pilots during trials to limits consistent with the design limits of the aircraft and its stage of development. Aircraft designated for the demonstration programs are to be assigned from production or from Research, Development, Test and Evaluation (RDT&E) as appropriate.

5. Responsibilities. Systems and Engineering Group (AIR-05).

a. Systems Criteria Section (AIR-51121) of the Systems Engineering Management Division (AIR-511) is responsible for:

(1) Coordinating the development, negotiation and preparation of the final draft of addenda to reference (a) or reference (b) as applicable, and revisions or amendments.

(2) Coordinating with the Assistant Program Manager for Systems and Engineering (APM-S&E) for the purpose of determining that the provisions of reference (a) or reference (b), as applicable, and of revisions or amendments, appear in the procurement contract.

b. Cognizant Aircraft Branch of AIR-511 is responsible for reviewing the inputs from the functional codes and the Naval Air Test Center (NAVAIRTESTCEN) for consistency with the systems requirements and to ensure that total systems demonstration requirements will be achieved and:

(1) Conduct negotiation in concert with AIR-51121 of addenda to reference (a) or reference (b) as applicable; resolve conflicts and inconsistencies.

(2) Ensure that the aircraft production and demonstration schedules are compatible.

(3) Establish aircraft delivery schedules for inclusion in the contract which are consistent with the policy of paragraph 4 of this instruction and the demonstration addendum.

c. Product Integrity Management Division (AIR-516) is responsible for reliability, maintainability, built-in-test (BIT), E³ (electromagnetic environmental effects), and system survivability/vulnerability (including live fire legislation tests) demonstration requirements.

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d. Air Vehicle Division (AIR-530) is responsible for aerodynamics, flight controls, hydrodynamics, shipboard dynamic interface, structural (including the structural aspects of the carrier suitability demonstration), vehicle subsystems, and materials and processes demonstration requirements. AIR-530 is also responsible for flight clearances to perform the build-ups and demonstrations, as well as for flight clearances resulting from the demonstrations.

e. Crew Systems Division (AIR-531) is responsible for the crew systems demonstration requirements. (i.e., human engineering, escape systems, and life support and survival systems requirements).

f. Propulsion and Power Division (AIR-536) is responsible for power plant, engine to airframe installation interfaces and monitorings, secondary and starting system electrical power systems, anti-icing and infrared suppression systems, propellers, transmissions and drive systems and airframe fuel systems demonstration requirements.

g. Weapons Engineering Division (AIR-540) is responsible for all armament, pyrotechnic and energetic material systems demonstration requirements.

h. Avionics and Computer Resources Division (AIR-546) is responsible for avionics systems demonstration requirements.

i. Reconnaissance and Photographic Systems Division (AIR-547) is responsible for reconnaissance demonstration requirements.

j. Ship and Shore Installations Division (AIR-551) is responsible for ship suitability demonstration requirements.

k. Support Equipment Division (AIR-552) is responsible for support equipment demonstration requirements.

6. Demonstration Program. Subject to conditions and following procedures in the following subparagraphs, the demonstration program for each aircraft procurement shall be established concurrently with the negotiation of the contract detail specification, and with the establishment of aircraft delivery schedules:

a. For aircraft of new design or aircraft never before demonstrated to Navy requirements, the Systems Criteria Section

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of the Systems Engineering Management Division shall furnish references and establish schedules for component divisions inputs for development of addenda to reference (a) or to reference (b), as applicable.

b. For aircraft with a new basic mission symbol, a new modified mission symbol, or a follow-on procurement of an already established model, a determination shall be made of the need for some or all of the demonstration requirements that would normally be required for a new design. To accomplish this objective, the Systems Engineering Management Division (cognizant aircraft branch) shall coordinate with the component AIR-05 divisions (and the Naval Weapons Evaluation Facility, if special weapons capabilities are involved) to make a determination of the necessity to demonstrate. If this coordination results in a decision to require a demonstration, the procedure of subparagraph 6a of this instruction shall be employed.



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